In the Claims:

Please cancel claims 17 and 35, and amend claims 1, 11, 13, 15, 16, 19, 25, 26, 28, 29, 30 and 32. The status of the claims is as follows as follows:

1. (Currently Amended) A dehydrocoupling polycondensation method for synthesizing polymetalloles including:

obtaining a dihydrometallole that includes silicon or germanium atoms;

designating a reducing agent for preparation of dihydrometallole monomer;

measuring a predetermined molar percentage of said reducing agent corresponding to a molar amount of said dihydrometallole;

selecting a catalyst; and

reacting said catalyst with said dihydrometallole monomer to obtain a polymetallole.

2. (Original) The method of claim 1 wherein said step of obtaining a dihydrometallole comprises reducing a dichlorometallole and subsequently catalytically dehydrocoupling the reduced dichlorometallole to yield a polymer.

3. (Original) The method of claim 1 wherein said step of obtaining a dihydrometallole comprises adding dichlorosilane to a solution of lithium and diphenylacetylene and subsequently catalytically dehydrocoupling a product to yield a polymer.

4. (Original) The method of claim 1 wherein said obtained dihydrometallole is 1,1-dihydro-2,3,4,5-tetraphenylsilole.

5. (Original) The method of claim 1 wherein said obtained dihydrometallole is

1,1-dihydro-2,3,4,5-tetraphenylgermole.

6. (Original) The method of claim 1 wherein said reducing agent is designated as $LiAlH_4$.

7. (Original) The method of claim 1 wherein said catalyst is Wilkinson's catalyst, which is $Rh(PPh_3)_3Cl$.

8. (Original) The method of claim 7 further comprising selecting said predetermined molar percentage of said Wilkinson's catalyst to be between 1 and 5 mol %.

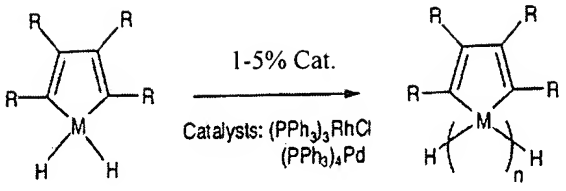
9. (Original) The method of claim 1 wherein said catalyst is selected to be $Pd(PPh_3)_4$.

10. (Original) The method of claim 9 further comprising selecting said predetermined molar percentage of $Pd(PPh_3)_4$ to be between 1 and 5 mol %.

11. (Original) The method of claim 1 wherein said catalyst is selected to be a combination of $H_2PtCl_6 \cdot xH_2O$ and allylamine.

12. (Previously Presented) The method of claim 11 further comprising selecting said predetermined molar percentage of said $H_2PtCl_6 \cdot xH_2O$ to be between 0.1 and 0.5 mol % and selecting said predetermined molar percentage of allylamine to be between 200 and 400 mol %.

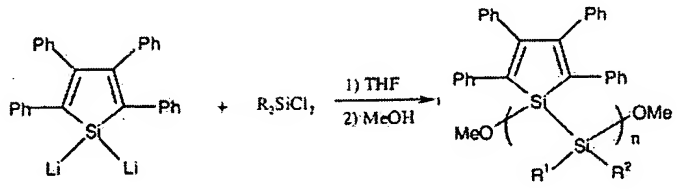
13. (Currently Amended) A catalytic ~~dehyrdocoupling~~ dehydrocoupling method for synthesizing metallole copolymers according to the following equation:

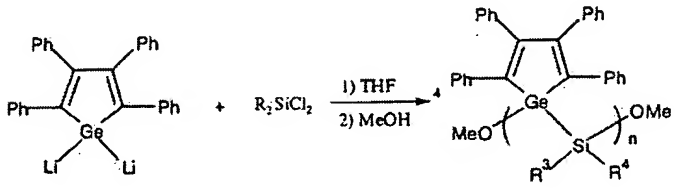


where R is a H or an alkyl or aryl group selected from the group consisting of Me or Ph; and

where M is selected from the group consisting of Si and Ge.

14. (Original) A Wurtz coupling polycondensation method for synthesizing metallole copolymers according to the following equations:



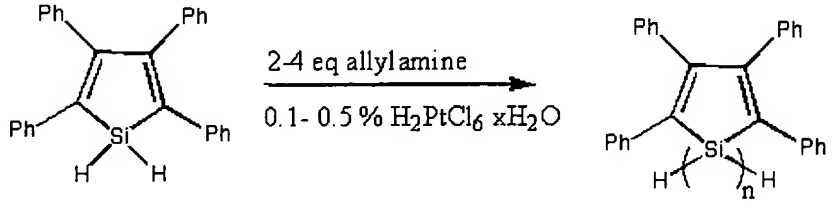


where Ph is a phenyl group, Me is a methyl group, and R is Me or Ph;

where the pair R^1 and R^2 are selected from the group consisting of: R^1= H and R^2= Me; R^1= H and R^2= Ph; R^1= Ph and R^2= Ph; and R^1= H and R^2= H; and

where the pair of R^3 and R^4 are selected from the group consisting of: R^3= H and R^4= Me; R^3= H and R^4= Ph; and R^3= Ph and R^4= Ph.

15. (Currently Amended) A catalytic ~~dehyrdocoupling~~ dehydrocoupling method for synthesizing metallole polymers according to the following equation:



16. (Currently Amended) A method for detecting an analyte that may be present in ambient air or complex aqueous media comprising:

providing a metallole polymer or copolymer containing a metalloid-metalloid backbone that includes Ge;

exposing said polymer or copolymer to ~~a suspected~~ the analyte or a system suspected of including the analyte; and

measuring a quenching of photoluminescence of ~~the~~said metallole polymer or copolymer exposed to the analyte or the ~~said~~ system.

17. (Canceled)

18. (Original) The method of claim 16 further comprising selecting said provided polymer or copolymer to be a polymer or copolymer containing tetraphenylgermole.

19. (Currently Amended) The method of claim 16 further comprising selecting a metalloid-metalloid backbone of said provided polymer or copolymer group of ~~Si-Si,~~ Ge-Ge, and Si-Ge.

20. (Original) The method of claim 16 wherein said step of providing a polymer or copolymer further comprises casting a thin film of said provided metallole polymer or copolymer.

21. (Original) The method of claim 20 further comprising depositing said prepared thin film on a glass substrate.

22. (Original) The method of claim 16 wherein said step of exposing said polymer or copolymer includes submerging said polymer or copolymer in an aqueous solvent.

23. (Original) The method of claim 16 wherein said step of exposing said polymer or copolymer includes submerging said polymer or copolymer in an organic solvent.

24. (Original) The method of claim 16 further comprising dissolving the polymer or copolymer in an organic solvent from the group consisting of toluene or THF.

25. (Currently Amended) The method of claim 16 wherein said step of exposing said polymer or copolymer includes submerging said polymer or copolymer in one or more aqueous inorganic acids.

26. (Currently Amended) The method of claim 25 further comprising selecting said one or more aqueous inorganic acids from the group consisting of H_2SO_4 and HF.

27. (Previously Presented) The method of claim 16 wherein said step of measuring a quenching of photoluminescence includes subjecting said polymer or copolymer to fluorescence spectrometry.

28. (Currently Amended) The method of claim 16 wherein said step of providing a said polymer or copolymer comprises dissolving said ~~the~~ polymer or copolymer in solution.

29. (Currently Amended) The method of claim 16 wherein said step of providing ~~a~~ said polymer or copolymer comprises producing a colloid of said ~~the~~ polymer or copolymer.

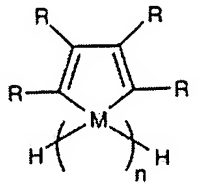
30. (Currently Amended) An inorganic polymer sensor for detecting nitroaromatic compounds comprising:

a substrate; and

a thin film of a metallole polymer or copolymer deposited on said substrate, said metallole polymer or copolymer including Ge.

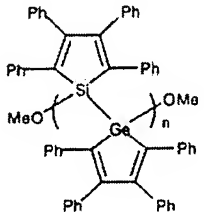
31. (Previously Presented) The sensor of claim 30 wherein said substrate is glass.

32. (Currently Amended) The sensor of claim 30 wherein said metallole polymer or copolymer is represented by the structure



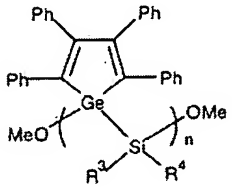
where R is an alkyl group selected from the group consisting of H, Me, or Ph; and where M is ~~selected from the group consisting of Si and~~ Ge.

33. (Previously Presented) The sensor of claim 30 wherein said metallole polymer or copolymer is represented by the structure



where Ph is a phenyl group and Me is a methyl group.

34. (Previously Presented) The sensor of claim 30 wherein said metallole polymer or copolymer is represented by the structure



where Ph is a phenyl group and Me is a methyl group; and

where the pair of R^3 and R^4 are selected from the group consisting of: R^3= H and R^4= Me; R^3= H and R^4= Ph; and R^3= Ph and R^4= Ph.

35. (Canceled)